# Air Quality Database 2022

April 6, 2022

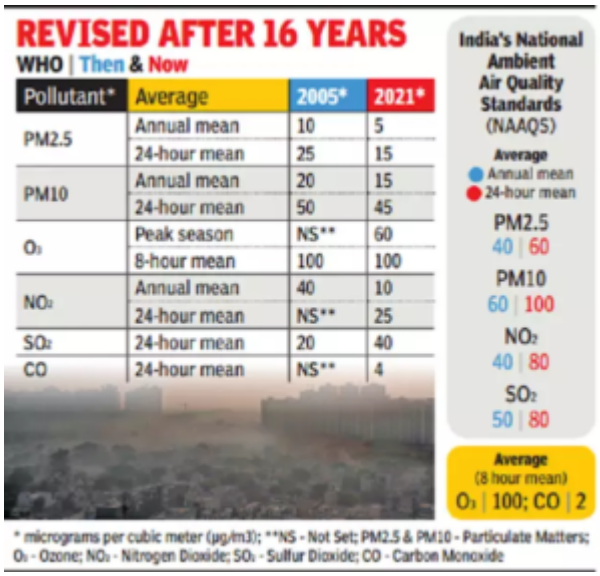
**In news–** The World Health Organization(WHO) has released the Air Quality Database- 2022 ahead of World Health Day on April 7.

**About air quality database-**

- The WHO air quality database compiles data on ground measurements of annual mean concentrations of particulate matter and nitrogen dioxide.
- The database is updated regularly every 2-3 years since 2011.
- The data compiled in this database is used as input to derive the Sustainable Development Goal Indicator 11.6.2, Air quality in cities, for which WHO is the custodial agency.
- **The aim of WHO's database 5th update is three-fold:**
    - To compile measurements of air quality that can be used in assessing population exposure to air pollution.
    - To raise awareness on air pollution and its impact on health; and
    - To provide a snapshot of air quality monitoring in countries.
- According to the 2022 update, almost the entire global population (99 percent) breathes air that exceeds WHO's air quality limits and threatens its health.
- **It says that more than 6,000 cities in 117 countries are now monitoring air quality but their residents are still breathing unhealthy levels** of fine particulate matter and nitrogen dioxide, while people in low and middle-income countries suffer the highest exposure.
- **The findings have prompted WHO to highlight the**

**importance of curbing fossil fuel** use and taking other tangible steps to reduce air pollution levels.

- **The WHO data has taken, for the first time, ground measurements of a**nnual mean concentrations of nitrogen dioxide (**NO2**), a common urban pollutant and precursor of particulate matter and ozone.
- **It also includes measurements of particulate matter** with diameters equal or smaller than 10 µm (**PM10) or 2.5 µm (PM2.5).** Both groups of pollutants originate mainly from human activities related to fossil fuel combustion.




- **The new air quality database** is the most extensive yet in its **coverage of air pollution exposure on the ground.**
- As many as **2,000 more cities and human settlements are now recording ground monitoring data for particulate matter, PM10 and/or PM2.5,** than in the last update. This marks an **almost sixfold rise in reporting** since the database was first made in 2011.
- Meanwhile, evidence base for **the damage air pollution does to the human body has been growing rapidly and points to significant harm caused by even low levels of many air pollutants.**
- **Particulate matter, especially PM 2.5, is capable of penetrating deep into the lungs and entering the**

**bloodstream**, causing cardiovascular, cerebrovascular (stroke) and respiratory impacts.

- **NO2 is associated with respiratory diseases, particularly asthma,** leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing), hospital admissions and visits to emergency rooms.
- **WHO in 2021 revised its air quality guidelines, making them more stringen**t in an effort to help countries better evaluate the healthiness of their own air.
- In the 117 countries monitoring air quality, the air in 17 percent of cities in high-income countries falls below WHO's air quality guidelines for PM 2.5 or PM 10.
- In low and middle-income countries, air quality in less than 1 percent of the cities complies with WHO recommended thresholds.
- Globally, low- and middle-income countries still experience greater exposure to unhealthy levels of PM compared to the global average, but NO2 patterns are different, showing less difference between the high- and low- and middle-income countries.

**Further reading: https://journalsofindia.com/new-global-air-quality-guidelines-by-who/**